

***Remarks***

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 21-92 are pending in the application, with claims 21, 35, 49, 63, 77, 91 and 92 being the independent claims. Claims 1-20 previously were cancelled without prejudice to or disclaimer of the subject matter recited therein. Claims 21-49, 57, 63-66, 69, 71-75, 77-80, 83, 85-89, 91 and 92 are sought to be amended for clarity. Support for these amendments is found at least at, for example, paragraphs [0047]-[0049] and FIG. 5 of the instant specification. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding rejections and that they be withdrawn.

***Rejections under 35 U.S.C. § 101***

Claims 21-48 and 63-92 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Applicants respectfully request reconsideration and withdrawal of the rejections for the reasons stated below, and respectfully request this rejection be removed and these claims be passed to allowance.

Although Applicants believe claims 21-48 and 63-92 as previously pending in the application recite patentable subject matter, Applicants have amended claims 21-48, 63-66, 69, 71-75, 77-80, 83, 85-89, 91 and 92 merely in order to expedite prosecution without conceding the propriety of the rejection.

Applicants have amended claims 21-34 to be directed towards computer-readable media having stored thereon, computer-executable instructions that, if executed by a computer, cause the computer to perform a method. Claims and 35-48 have been amended to recite computer-implemented methods. Claims 63-66, 69 and 71-75 have been amended to recite computer program products having control logic stored thereon that, if executed by a computer, cause the computer to perform a method for organizing and analyzing information. Claims 77-80, 83 and 85-89 are amended to recite computer implemented devices including a computer-readable medium having control logic stored thereon that, if executed by the computer implemented device, cause the computer implemented device to organize and analyze information by a method. Claim 91 has been amended to recite a system comprising a processor and analyzing, with the processor, a third group of documents according to one or more selected analytical functions. Claim 92 is amended to recite initiating a search of a first group of documents according to one or more user-selected search functions executed by one or more computers and initiating analysis of a third group of documents according to one or more analytical functions executed by one or more computers.

Support for these amendments is found at least at Figure 5 and paragraphs [0047]

- [0049] which read:

Removable Storage unit 520, also called a program storage device or a computer program product, represents a floppy disk, magnetic tape, compact disk, optical storage disk, ZIP disk, memory card, PCMCIA card, or any other computer data storage device. Program storage devices or computer program products also include any device in which computer programs can be stored.

In an embodiment, the present invention is directed to computer program products or program storage devices having software that enables the computer 502 to perform any combination of the functions described herein.

Computer programs (also called computer control logic) are stored in main memory 508 and/or the secondary storage devices 514. Such computer programs, when executed, enable the computer 502 to perform the functions of the present invention as discussed herein. In particular, the computer programs, when executed, enable the processor 506 to perform the functions of the present invention. Accordingly, such computer programs represent controllers of the computer 502.

In 1995, the Commissioner of Patents and Trademarks conceded to the U.S. Court of Appeals for the Federal Circuit "that computer programs embodied in a tangible medium, such as floppy diskettes, are patentable subject matter under 35 U.S.C. § 101." *See In re Beauregard*, 53 F.3d 1583 (Fed. Cir. 1995).

Thus, claims 21-48, 63-66, 69, 71-75, 77-80, 83, 85-89, 91 and 92 as amended herein recite statutory subject matter.

Claims 67-68 and 70 depend from claims 66 and 69, respectively, and are believed allowable for the same reasons. Claim 76 depends from claim 63 and is believed allowable for the same reasons. Claims 81-82 and 84 depend from claims 80 and 83, respectively and are believed allowable for the same reasons. Claim 90 depends from claim 77 and is believed allowable for the same reasons.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejections of claims 21-48 and 63-92 under 35 U.S.C. § 101.

***Rejection under 35 U.S.C. § 103***

Claims 21-92 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 5,721,910 to Unger *et al.* (hereinafter "Unger") in view of U.S. Patent No. 5,787,424 to Hill *et al.* (hereinafter "Hill"). Applicants respectfully traverse this rejection for the reasons stated below.

Independent claims 21, 35, 49, 63 and 77 recite features not taught or suggested by the applied references. For example, claim 21 recites, *inter alia*:

searching a first group of documents according to one or more search functions to output a second group of documents, ***wherein the second group of documents is a subset of the first group of documents***;  
wherein the search functions comprise at least one of the following:

morphological functions; lexical functions;  
syntactic functions;  
semantic functions;  
discourse functions;  
pragmatic functions;  
full text functions;  
Boolean functions; and  
clustering functions;

analyzing a third group of documents according to one or more analytical functions to output a fourth group of documents, ***wherein the fourth group of documents is a subset of the third group of documents***;

wherein the analytical functions comprise at least one of mapping functions, citation functions, plot lineage functions, and reporting functions; and

***selectively iterating at least one of the searching step and the analyzing step, wherein each iteration of the searching step or the analyzing step is performed using as input the second group of documents, the fourth group of documents, or output of a previous iteration***;

wherein said selectively iterating step includes:

performing an additional iteration of the searching step using as input the second group of documents, to output a fifth group of documents, ***wherein the fifth group of documents is a subset of the second group of documents***; and

performing an additional iteration of the analyzing step using as input the fourth group of documents, to output a sixth group of documents, ***wherein the sixth group of documents is a subset of the fourth group of documents***

(emphasis added).

The instant specification discloses that a goal of a search process is to identify a group of documents which satisfy search and/or analysis criteria. Searching a first group of documents results in a second group of documents that satisfy the search criteria, wherein the second group of documents includes documents that were identified during

the search of the first group of documents (i.e., the second group of documents is a subset of the first group of documents).

On page 4 of the Office Action the Examiner asserts that "Unger teaches a method for enabling a user to organize and analyze information comprising "analyzing a third group of documents according to one or more analytical functions to output a fourth group of documents, wherein the fourth group of documents is a subset of the third group of documents" at column 6 lines 25-55". Applicants respectfully disagree.

Applicants respectfully submit that the Examiner has misinterpreted the teachings of Unger. The relationships between data associated with Unger's Stages III-VI are defined in lines 35-51 of column 6 of Unger, which read:

"Stage V and the *Parsed data* from Stage III *feed into Stage VI. Stage VI represents a high-level overview* of a business, scientific or technical entity or specialty and provides a method for grasping the pattern of research effort represented by a collection of patents or technical documents. *These patterns are obscure at Levels I and II, and can only be clearly observed after pursuing the methods of this invention to achieve the higher level abstraction represented by Stages III through VI.*

The dashed line from Stage V to Stage I represents the fact that *the data stored in the data base, and all associated analyses of Stages II [through] VI may be used to identify patents and/or technical documents* of particular interest for a particular application. The *patent numbers* for this set of patents *may then be used as unique identifiers to electronically link to full text sources of patents* and display the full text and associated graphic images of the set of patents. The electronic full text sources of these patents may be on a CD-ROM, a LAN or on the Internet. Unique Identifiers may similarly be used to link to sources of full-text technical or scientific documents." (emphasis added)

Stages I-VI are illustrated in FIG. 1 of Unger and further described in line 62 of column 4 through line 2 of column 5 which read:

"Stages I and II represent well known methods of dealing with collections of full-text patents and semi-organized analyses of those collections of patents *in the form of spreadsheets or small databases. Stage III*

*through VI represent the subject of this invention whereby increasingly abstract concepts and overviews can be derived from a collection of electronically available patent abstracts, and/or technical documents, technical indexing, and patent claims.” (emphasis added)*

Unger's analysis is based on stage III's “parsed data” and “increasingly abstract concepts and overviews” from Stages IV-VI “derived from a collection of electronically available patent abstracts, and/or technical documents” and *excludes* Stage I and II “collections of full-text patents” documents (Unger, col. 4, ln. 62 to col. 5, ln. 2 and col. 5, ln. 35). Applicants submit “parsed data” and “increasingly abstract concepts and overviews” are not comprised of “collections of full-text patents” documents, which are explicitly excluded from Unger's analysis.

Claim 21 recites selectively initiating at least one iteration of a search and at least one iteration of analysis, wherein each iteration of the search or the analysis is performed using as the input one of the second group of documents, the fourth group of documents, or the output of a previous iteration. Unger clearly fails to teach or suggest this distinguishing feature. In contrast to the above-noted feature of claim 21, Unger teaches that analysis of the patent and technical documents comprising Stage I is *not* performed because analysis “patterns are obscure at Levels I and II, and can only be clearly observed after pursuing the methods of this invention to achieve the higher level abstraction represented by Stages III through VI” (Unger, col. 6, lns. 39-43).

Thus, Unger teaches away from selectively iterating at least one of the searching step and the analyzing step, wherein each iteration of the searching step or the analyzing step is performed using as input the second group of documents, the fourth group of documents, or output of a previous iteration, as recited in claim 21. Moreover, as Unger teaches away from what is recited in claim 21 of the present application, Applicants

submit that Unger cannot be used to establish a *prima facie* case of obviousness. See, M.P.E.P. §§ 2141.02 and 2145(X)(D)(2).

Moreover, Applicants submit that the Examiner has improperly ignored the fundamental and significant differences between an iterative method using “a group of documents” as input to each step as recited in the claims, and a method using as input “parsed data” and “increasingly abstract concepts and overviews” as discussed in Unger. The input into Unger's analysis is based on abstractions and overviews of full text patent files and technical documents, not groups of documents per se, as recited in claim 21.

Unger lacks any teaching or suggestion of analyzing an input group of *documents* to output another group of *documents*, wherein the output group of documents is a subset of the input group of documents, as recited in claim 21. In contrast, Unger's analysis is based on stage III data parsed from documents and abstract and overview stage IV-V data stored in a database linked by unique identifiers (patent numbers) to a group of documents stored in a separate data base (e.g., CD-ROM, LAN or Internet) (Unger, col. 3, lns. 55-59, col. 6, lns. 25-55, FIG. 1). Unger describes that the unique identifiers (patent numbers) are not search or analysis criteria applied to a group of documents, but instead are merely used to electronically link parsed data (Stage III) and abstractions of data (Stages IV-VI) to patent and technical documents (Stage I) (Unger, col. 6, lns. 25-55 and FIG. 1). Further, Unger's unique identifiers are merely data, such as patent numbers, identified after parsing patent documents and are not a group of documents, as recited in claim 21.

In summary, the inputs into Unger's analysis are “increasingly abstract concepts and overviews” “derived from a collection of ... patent abstracts” electronically linked to full text source patent files located “in a stack of paper copies or in an electronic

collection on a CD-ROM, in a database, on a LAN or on the Internet" (Unger, col. 4, ln. 62 - col. 5, ln. 2 and col. 5, lns. 3-16). In contrast, claim 21 recites selectively performing iterative analysis on a group of *documents* resulting from a prior search or analysis iteration, to produce a group of documents.

On page 5 of the Office Action the Examiner concedes that Unger does not teach selectively iterating at least one of the searching step and the analyzing step, wherein each iteration of the searching step or the analyzing step is performed using as input the second group of documents, the fourth group of documents, or output of a previous iteration; wherein said selectively iterating step includes: performing an additional iteration of the searching step using as input the second group of documents, to output a fifth group of documents, wherein the fifth group of documents is a subset of the second group of documents; and performing an additional iteration of the analyzing step using as input the fourth group of documents, to output a sixth group of documents, wherein the sixth group of documents is a subset of the fourth group of documents, as recited in claim 21. Rather, the Examiner relies on Hill to cure the deficiencies of Unger.

Applicants submit that Hill fails to remedy the deficiencies of Unger. Specifically, Applicants submit that Hill fails to disclose or suggest at least the above-discussed features of claim 21 relating to selectively iterating at least one of the searching step and the analyzing step, wherein each iteration of the searching step or the analyzing step is performed using as input the second group of documents, the fourth group of documents, or output of a previous iteration. In contrast, Hill's document retrieval system receives a query and performs "recursive retrieval automatically within human intervention" and "allows automatic recursive retrieval" (Hill, col. 2, lns. 52-54 and 59-60 and col. 6, lns. 28-30). Although Hill may describe that "[a]t each iteration,



the iterative repository produced by the previous iteration is used as a starting point to generate the next iterative repository" (Hill, col. 3, lns. 5-7), Hill does not teach or suggest *selectively* iterating at least one of the searching step and the analyzing step, as recited in claim 21.

Hill does not teach or suggest performing an iterative method of analysis using a group of documents as input, in order to output another group of documents which are a subset of the input group of documents, as recited in claim 21. Rather, Hill is limited to an "automatic recursive retrieval system" which allows automatic recursive retrieval of documents from a repository (Hill, col. 11, lns. 31-34). Hill contains not teaching or suggestion of *selectively iterating* at least one searching and at least one of *analyzing* of a group of documents, wherein each iteration of the searching or the analyzing is performed using as the input one of a second group of documents resulting from a previous search, a group of documents resulting from a *prior analysis*, or the output of a previous iteration, as recited in claim 21. Hill is silent regarding the capability of selectively iterating an *analysis* of a group of documents *according to one or more analytical functions* to output a group of documents which are a subset of the input group of documents, as recited in claim 21. Hill is not stated by the Examiner to teach, nor does it teach or suggest, at least the above-recited distinguishing features of claim 21.

Also, Applicants submit that any use by the Examiner to apply piecemeal parts of Hill to cure the deficiencies in Unger would destroy the teaching of these references by making the systems/methods of operation unsatisfactory for their intended purposes and/or change the systems/principles of operation. See M.P.E.P § 2143.01(V) and (VI).

For example, as Hill seeks to use "iterative steps to allow the discarding of irrelevant documents" and Hill's method discards "irrelevant documents at each iteration

as identified by the associated retrieval process" (Hill, col. 2, lns. 6-7 and col. 3, lns. 50-52), and Unger seeks to derive "abstract concepts and overviews ...from a collection of electronically available patent abstracts, and/or technical documents" (Unger, col. 4, ln. 65- col. 5, ln. 3), Unger's abstraction derivation feature interferes with Hill's document discarding feature.

Similarly, as Unger analyzes "full-text patents and/or technical documents and storing that patent-by-patent analysis in the form of subject-specific spreadsheets, and small databases" without discarding documents "from a collection of electronically available patent abstracts, and/or technical documents" (Unger, col. 5, lns. 1-2 and 7-10) and Hill seeks to eliminate non-relevant documents by discarding "irrelevant documents" (Hill, col. 1, lns. 15-16 and col. 3, lns. 32-34, 42-44, and 40-53), adding Unger to Hill destroys Hill's document discarding feature. For this additional reason, the claims should be found allowable over the applied references.

Therefore, Hill cannot cure the deficiencies of Unger, and cannot be used to establish a *prima facie* case of obviousness.

Thus, the allegedly obvious combination of Unger and Hill does not teach or suggest each and every limitation of claim 21. Hill fails to add anything to Unger that would have made obvious the claimed invention.

For at least these reasons, independent claim 21 is allowable over the applied references. Reconsideration and allowance of claim 21 is respectfully requested. Accordingly, at least based on their dependencies to allowable independent claim 21, claims 22-34 should be found allowable over the applied references, as well as for their additional respective distinguishing features.

On page 9 of the Office Action, claims 35-92 were rejected based on the same rationale applied to claims 21-34. Claims 35-92 recite computer implemented methods, systems, devices, computer program products, and computer implemented devices with distinguishing features similar to claims 21-34, and thus are patentable over the applied references for similar reasons as discussed above with regards to claim 21. Independent claims 35, 49, 63 and 77 recite similar distinguishing features as claim 21. For example, claim 35 recites a computer implemented method comprising, *inter alia*:

selectively iterating at least one of the searching step and the analyzing step, wherein each iteration of the searching step or the analyzing step is performed using as input the second group of documents, the fourth group of documents, or output of a previous iteration;  
wherein said selectively iterating step includes:  
performing an additional iteration of the searching step using as input the second group of documents, to output a fifth group of documents, wherein the fifth group of documents is a subset of the second group of documents; and  
performing an additional iteration of the analyzing step using as input the fourth group of documents, to output a sixth group of documents, wherein the sixth group of documents is a subset of the fourth group of documents.

Independent claims 49, 63, 77, 91 and 92 recite, using respective language, similar features of:

selectively iterating at least one of the searching step and the analyzing step, wherein each iteration of the searching step or the analyzing step is performed using as input the second group of documents, the fourth group of documents, or output of a previous iteration;  
wherein said selectively iterating step includes:  
performing an additional iteration of the searching step using as input the second group of documents, to output a fifth group of documents, wherein the fifth group of documents is a subset of the second group of documents; and  
performing an additional iteration of the analyzing step using as input the fourth group of documents, to output a sixth group of documents, wherein the sixth group of documents is a subset of the fourth group of documents.

Thus, for at least the reasons stated above with regards to claim 21, Applicants submit that claims 35, 49, 63, 77, 91 and 92 are patentable over the applied references, and request that the rejection of claims 35, 49, 63 and 77 be reconsidered and withdrawn. As discussed above with regards to claim 21, Unger and Hill, taken singly or in the allegedly obvious combination do not teach or suggest the above-recited features of claims 35, 49, 63 and 77.

Claims 22-34, 36-48, 50-62, 64-76 and 78-90 depend from claims 21, 35, 49, 63 and 77, respectively, and are believed allowable for the same reasons. See, *In Re Fine*, 837 F.2d 1071 (Fed. Cir. 1988), and M.P.E.P. § 2143.03.

### ***Conclusion***

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

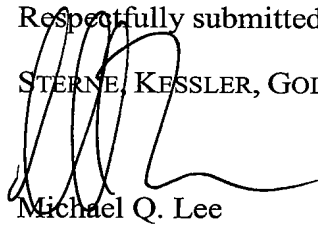
Reply to Office Action of February 9, 2009

BLAIR *et al.*  
Appl. No. 09/848,437

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read "Michael Q. Lee", is written over the printed name.

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